

Ferric Sulfite Agar

Catalog :HB0304-3

Ferric Sulfite Agar is used for counting *Clostridium* of anaerobic and sulfite reduction.

Approximate Formula:

Ingredients	gm/liter
Tryptone	15.0
Soya peptone	5.0
Yeast extract	5.0
Sodium metabisulfite	1.0
Ammonium ferric citrate	1.0
Agar	20.0
Final pH7.4-7.8 at 25°C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 47.0g of the medium in one liter of deionized or distilled water. Dissolve completely. Dispense into flasks. Sterilize in an autoclave at 121°C (15 lbs.) for 15 minutes. When cool to 45-50°C, pour into petri dishes.

Principle and Interpretation:

Yeast extract, soybean peptone, Tryptone provide nitrogen sources, vitamins, growth factors; Ammonium ferric citrate and sodium metabisulfite are used to detect hydrogen sulfide production, giving the colony a black center. Agar is the solidifying agent.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Ferric Sulfite Agar must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 35°C in an anaerobic atmosphere for 24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
<i>Clostridium perfringens</i>	ATCC 13124	50-100	luxuriant	≥70%	Black with opaque zone around colonies

References:

- 1.EN ISO International Standardisation Organisation. Microbiology of the food chain - Horizontal method for the detection and enumeration of *Clostridium* spp. - Part 1: Enumeration of sulfite-reducing *Clostridium* spp. by colony-count technique. EN ISO 15213-1:2023.
- 2.EN ISO International Standardisation Organisation. Microbiology of food, animal feed and water -Preparation, production, storage and performance testing of culture media + Amendment 1 +Amendment 2. EN ISO 11133:2014/Amd 1:2018/Amd 2:2020.
- 3.Mossel, D.A.A., v. Golstein Brouwers, G.W.M. and de Bruin, A.S. (1959): A simplified method for the isolation and study of obligate anaerobes. J. Path. Bact. 78, 290-291.